for example the coronary vascular system of a patient, by means of a scan rotation of an X-ray source around said object over a run length, said X-ray images being acquired at predetermined characteristic time moments in a cardiac cycle of the object; and

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reconstructing a 3-dimensional volume of the imaged object, wherein the run length of the scan rotation over substantially 180° is at least 15 s and preferably about 20 s, and wherein the number of measuring points obtained in successive cardiac cycles for reconstructing the 3-dimensional volume is reduced.

C2

6. (Twice Amended) 3D-rotational X-ray apparatus for applying the method according to claim 1, comprising a circular C-arm with a drive, the C-arm accommodating an X-ray source and an X-ray image pick-up device and being rotatable over an angle of substantially 180° around its center by means of said drive, triggering means for triggering the X-ray images at predetermined characteristic time moments in a cardiac cycle of the object, wherein the number of measuring points obtained in successive cardiac cycles is reduced, and means for processing the images obtained to reconstruct a 3-dimensional volume of the object, wherein the drive of the C-arm is adjusted to a run length of a scan rotation over substantially 180° which is at least 15 s and preferably about 20 s.